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New Plants from New Mexico.—II.

By E. O. Wooton.

Selinocarpus lanceolatus.

Perennial with a ligneous root from which arise numerous diffusely branching stems 1–2 dm. high which are slender, woody at the base, terete, tumid at the nodes, pulverulent pubescent; leaves opposite, subsessile, ovate-lanceolate, 1–3 cm. long, 5–8 mm. wide, entire, obtuse, fleshy, bluish-green color (drying dark-colored), glaucous, pubescent with small scattered scale-like hairs; flowers axillary, sessile, solitary though at first appearing geminate in the upper axils, bracts subulate: calyx tubular-funnelform, 4 cm. long including the ovary; tube slender, fleshy, hirtellous; limb light yellow with five thickened ribs: stamens 5, little exserted; filaments attached for about ⅔ of length of tube, free from just below the throat, involute in the bud; anthers 2-celled, flattened, elliptical, attached by their inner edges to the connective, versatile, dehiscent along the outer edges: fruit oblong-prismatic, 6 mm. long, with five indurated angles upon which are membranous wings 2–3 mm. wide, membranous between the angles; seed single, suspended by a 1 mm.-long funiculus from the top of the pericarp.

Collected on white soil (mostly gypsum?) just south of the White Sands, August 26, alt. 4000 feet, no. 389.

First collected by Dr. H. H. Rusby near El Rito, N. M., July, 1889 (no. 357) and referred to as *S. diffusus* Gray to which it is closely related, but from which it may be separated by its solitary flowers, and fleshy, narrower, glaucous, not scabrous leaves.

Berberis haematocarpa.

Branching shrub 1–2 m. high with yellowish sapwood, bark grayish and shreddy on the older and brownish on the younger stems: leaves inclined to be fascicled, 4–7 cm. long, pinnately 3–7-foliolate, subsessile, the proper petiole 5 mm. long or less; stipules laciniate; leaflets stiff, coriaceous, ovate to oblong-lanceolate, 1.5–4 cm. long, 5–10 mm. wide, terminal leaflets 1.5–2 times as long as others, glabrous, very little reticulated, only the more prominent veins showing, margin with 2–4 pairs of sinuate spinescent teeth: racemes fascicled with the leaves, equalling or slightly surpassing

them, 5–7-flowered; pedicels 8–14 mm. long; bracts broadly ovate, acuminate, 1–3 mm. long, persistent: fruit an oval to spherical berry of rather transparent blood-red color and pleasant acid taste, 7–8 mm. in diameter, ripening in southern New Mexico in August; seeds brownish red, elliptic-ovate, slightly flattened, 4 mm. long, 2 mm. broad.

Collected at the Mescalero Agency in the White Mountains, August 23, alt. 6300 feet, no. 376.

I first saw this plant in the Organ Mountains, August 4, 1895, in Fillmore Cañon at an altitude of 6300 feet, in company with Mr. E. N. Plank, as told by him in *Garden and Forest* **9**: 322, but it is in no way closely related to *B. Fendleri* as there stated.

But this is by no means the first time it was collected. Dr. Torrey had what I take to be this plant before him on several occasions and confused it with what he finally described as *B. Fremontii* Bot. Mex. Bound. 30.

It is *B. pinnata* Torr. Sitgr. Rept. 155 (not Lag.) from near Peach Springs, Ariz., Oct. 24, 1851, in fruit, and Emory's Recon. 137, from the Mimbres Mountains in New Mexico, Oct. 17, 1846; *B. trifoliata* Torr. in Whipples' Rept. (not Moric.) in so far as it refers to the above named specimens and probably the Gregg specimen (which I have not seen); and *B. Fremontii* Torr. Bot. Mex. Bound. 30 in part, in so far as it refers to the above named specimens, and Capt. E. K. Smith's specimen from Cañon of the Guadaloupe in southwestern New Mexico or Sonora, and Thurber's specimen from Mule Spring, New Mexico, May, 1851, no. 277. *B. Fremontii* Britton and Kearney (not Torr.) Trans. N. Y. Acad. Sci. **14**: 29. 1894, referring to Mrs. Hoyt's specimen from Ft. Apache, Ariz., *B. Fremontii* Britton (not Torr.) *l. c.* **8**: 62. 1889–1890, referring to Dr. Mearn's specimen, no. 266, from Ft. Verde, Ariz., 1884, and Rusby's specimen from Ash Forks, Ariz., June 11, 1893, belong here.

The characters of the flowers drawn from some of the above mentioned specimens are as follows:

Two ovate-lanceolate and 3 broadly ovate bracts at the base of the flower, the first adhering to the pedicel, the others sepaloid: proper sepals petaloid, obovate, 3 of them clawed, 5–7 mm. long, 3 mm. broad: petals elliptical-obovate, not clawed, slightly shorter

than the longest sepals, crisped, sometimes emarginate to retuse, with a pair of glands at the base: stamens about the length of the petals; filaments stout, appendicular teeth mere rounded projections at the base of the anthers, hardly noticeable: ovary ellipsoidal, constricted above and below, with a subsessile umbilicate stigma 1.4 mm. in diameter.

B. Fremontii is correctly characterized in Syn. Fl. 1. pt. 1. 69, as having its leaflets ovate to oblong, and the terminal one not over an inch long while the filaments are noticeably appendiculate. In *B. hæmatocarpa* the flowers are smaller, the appendages to the filaments hardly noticeable, the terminal leaflet is longer, and all leaflets are narrower.

Our plant may be *B. Nevinii* Gray, but with the short description in Syn. Fl. and only a single specimen without flowers or fruit (collected by Dr. Franceschi) at my command it is impossible to be certain. The above mentioned specimen has thinner and larger leaflets, with more numerous and weaker teeth, and is with the type from Los Angeles Co., Calif., while the range of our species, as shown by the specimens above referred to seems restricted to the mountains of New Mexico and Arizona.

FALLUGIA PARADOXA (Don) Endlicher, var. ACUMINATA.

Differing from the typical (Mexican) plant by having much more dense pubescence on the leaves and stems and sepals having but one acuminate to subcarinate cuspidate tip, while the type is described and figured as tricuspidate. Collected on the mesa near Las Cruces, July 1, alt. 4100 ft., no. 65.

Dr. Torrey figured the varietal form in Emory's Recon. Pl. 2, and all material which I have seen that has been collected in New Mexico and Arizona belongs here. Two specimens from southwestern Texas, in this herbarium, agree with Don's description and figure of the Mexican plant.

SPHAERALCEA LOBATA.

Perennial, several erect branching stems from the suffrutescent base, 1–1.5 m. high or even higher in favorable locations; whole plant scurfy with a close stellate pubescence which is easily rubbed from the stems: leaves triangular-lanceolate in outline, 6–10 cm. long, 2–4 cm. wide, even the uppermost leaves 3-lobed, the basal

ones 3–5-lobed, the middle lobe largest, oblong to triangular in outline, obtuse, lateral lobes rounded, sinuses shallow, irregularly crenate-dentate, veins prominent and very scurfy; petioles 1–3 cm. long, ascending: flowers in clusters in the axils of the reduced upper leaves forming an elongated leafy panicle; peduncles 1–3 cm. long, pedicels 3–10 mm. long; involucral bracts 3, linear-subulate: calyx-tube campanulate, persistent, 2–4 mm. long, limb of 5 ovate acute segments of same length as tube: petals obovate, 10–14 mm. long, 10 mm. broad, orange-vermilion (drying rose colored), on some plants a light pink: staminal tube antheriferous only at the top: carpels 12–15, elliptical-oblong, reticulate on sides near the base, smooth above, cuspidate, cusp 1–2 mm. long; seeds usually two in each cell, finely pubescent, slightly flattened.

Collected at Mesilla, July 14, where it is a common fence-row and ditch-bank weed. Altitude 3900 feet, no. 2.

This has been collected by most of the collectors in the southwest, for it is a common plant in that region, but has generally been referred to *S. cuspidata* (Gray) Britton (*S. angustifolia* var. *cuspidata* Gray). The most typical specimen of it in Columbia Herbarium has "*S. angustifolia* var. *cuspidata* passing to *Fendleri*" upon the sheet in Dr. Gray's handwriting. In the field it is easily separable from either of these species. *S. Fendleri* is only about half the size of either of the others, being rarely over 7 dm. high, and has deeply 5-lobed leaves. *S. cuspidata* has much the size and habit of *S. lobata*, but its upper leaves are narrowly oblong and not lobed and only the lowest leaves are obscurely 3-lobed, while all are more or less folded together along the midrib, the flowers are slightly more orange-colored, and although I watched carefully for color variation in the thousands of plants passed during the summer, I saw none whatever.

GAURA NEO-MEXICANA.

Several curved ascending stems from a ligneous root, each branching above into several erect to ascending virgate branches bearing terminal spikes; bark brown and shreddy below; whole plant villous with hairs of various lengths, spreading hispidulous on the lower portion of the stem, some of the hairs curved and subappressed upon the middle and upper parts, mostly so on the leaves, becoming finely viscid glandular and spreading upon the inflorescence: leaves lanceolate, 5–10 cm. long, 8–16 mm. wide, acute, decurrent, subsessile, subentire to slightly sinuate with a few

inconspicuous blunt calloused teeth: flowers rather large, 2.5–3 cm. long, sessile; bracts ovate-lanceolate, 5 mm. long, caducous: calyx-tube 1 cm. long, finely villous within for upper third of its length; limb of four narrowly oblong-spatulate segments slightly longer than the tube: petals obovate, 1 cm. long, short-clawed, rose pink: stamens of equal length; filaments terete, somewhat thickened, scale at base terete, obtuse, 0.2 mm. long; anthers oblong, 3 mm. long, versatile: style slightly surpassing stamens, finely villous below the middle: stigma with four terete lobes adherent to a circular indusium about half the diameter of the spread lobes; ovary fusiform, 4-lobed: fruit obovate-pyramidal, 7–8 mm. long, 3–4 mm. broad, angles rounded until mature when they are acute, a prominent single ridge upon each side reaching from the base slightly past the middle where it almost disappears, not pediceled nor tranversely rugose nor contracted at the base.

Collected on the south fork of Tularosa Creek three miles east of the Mescalero Agency in the White Mountains, July 25. Alt. 6500 feet, no. 204. It is most nearly related to *G. bicnnis* L.

SCROPHULARIA MONTANA.

Herbaceous annual? 1–1.5 m. high, branched above, spreading: stems acutely striate-angled, glabrous below: leaves opposite or sub-opposite, more or less broadly lanceolate, 8–15 cm. long, 2–5 cm. broad, acute, decurrent to a petiole 0.5–2 cm. long, finely glandular-pubescent especially upon the veins, lighter colored beneath, coarsely serrate with mucronate teeth or upper leaves subcrenate: inflorescence a terminal elongated panicle 2–3 dm. long, peduncle and pedicels very glandular, pedicels 1–2.5 cm. long, bracts linear-lanceolate, 1 cm. long or less: calyx segments ovate, obtuse, 3–4 mm. long, glabrous, but little united at the base, persistent: corolla ventricose-oblong, glabrous, 6–8 mm. long, 3–4 mm. in diameter, lurid purplish, the upper lip 2-lobed, projecting in the same straight line as the tube, exterior in the bud, lateral lobes shorter and spreading, lower lobe still shorter and reflexed: stamens 4, included; filaments stout, stipitate-glandular, rudiment subsessile, rounded: stigma globular, included; style glabrous, broadening at the base; ovary conical, 2-celled with thick honeycombed central placentae, disk prominent: fruit a coriaceous concal capsule 10–15 mm. long, 5–8 mm. in diameter with prominent sutures on the sides, its rounded base subtended by the persistent calyx and apex tipped by the persistent style; seeds small, numerous, brown, rugose.

Collected on Eagle Creek near Gilmore's Ranch in the White Mountains, August 5th. Altitude 7000 feet, no. 280. First col-

lected about six miles south of the above place on Ruidoso Creek, June 23, 1897.

This species is most nearly related to *S. leporella* Bicknell, but may be separated from that species by the narrower, shorter petioled, more finely toothed leaves and the generally longer and more narrowly conical fruit.

SAMBUCUS NEO-MEXICANA.

Arborescent, 3–5 m. high with erect rather smooth-barked trunk 5–10 cm. in diameter, symmetrically branched above, forming a round head 2–3 m. in diameter: leaves pinnately 3–7-foliolate; leaflets lanceolate to narrowly ovate-lanceolate, 6–12 cm. long, 2–3 cm. wide, with inquilateral rounded base, acuminate, thick, margin finely serrate-dentate; petiolules 1 cm. long or less, glabrous or puberulent: flowers cream-colored, in a flat-topped, five-rayed compound terminal cyme 1–2 dm. across; peduncles and rays glabrous and slightly glaucous: fruit black, glaucous, berries spherical, 6–7 mm. in diameter, very numerous.

Collected at Ruidoso Crossing, in the White Mountains, August 2 and 19. Altitude 6200 feet, no. 648. Also collected about five miles further up Ruidoso Creek, at an altitude of about 7000 feet, June 23, 1895.

What I take to be the same plant I found in the Organ Mountains May 15, 1892, but this sends up numerous stems without a main trunk and the young branches and peduncles are closely puberulent.

The White Mountain specimens agree fairly well with "*S. glauca* var. foliolis auguste lanceolatis" Gray, Pl. Wright. **2**: 66, from near the Copper Mines, October, 1851, and the Organ Mountain specimen agrees exactly with no. 423 of the Boundary Survey collections from Ben Moore Mountain, N. Mex., June, 1851, which Dr. Torrey refers to the plant mentioned by Dr. Gray.

This species seems to be somewhat intermediate between *S. Mexicana* and *S. glauca*, *i. e.*, taking the well-grown tree of the valleys of southern New Mexico and Arizona and northern Mexico to be the plant Presl had in mind when he wrote the name *S. Mexicana*.

S. Mexicana has broadly-elliptical to obovate, abruptly acuminate leaflets little over half as long as those of *S. Neo-Mexicana*, its fruit is slightly smaller and in southern New Mexico is

rarely seen, only a few berries on the many-flowered cymes maturing, and the trunk is always rough and gnarled. It is always to be found in the valleys below irrigation level, while our plant grows only in the mountains, so far as I have observed.

S. Neo-Mexicana seems much nearer to *S. glauca*, but its leaves are little over half as wide as those of that species and there is a noticeable tendency to puberulence upon peduncles and leaves.

SICYOS GLABER.

Annual? stems slender, 4–6 m. long, climbing over bushes, striate, glabrous except near the nodes and towards the growing ends, where they are viscid villous; tendrils 3–4-branched from a stout base 3–5 cm. long: leaves thin, 5–12 cm. long and almost as broad, 5-lobed, lobes triangular-ovate, the terminal one larger and short acuminate, mucronate, margin coarsely sinuate-dentate with mucronate teeth, deeply cordate, the sinus 2–2.5 cm. deep and 3–4 cm. wide not overlapping, upper surface scabrous with tuberculate white hairs, lower surface more sparingly hairy with weaker hairs; petioles 0.5–5 cm. long, viscid with a pubescence which follows up the main veins especially on the upper surface of the leaf: staminate flowers in strict racemes, 15–20-flowered, 1–2 dm. long; peduncles viscid, pedicels 3–4 mm. long, glabrous, somewhat recurved; flowering peduncles some distance from end of stem: calyx-teeth very small or obsolete: corolla yellow; tube broadly companulate with wide spreading 5-parted limb, segments ovate, glabrous: filaments united into a column 2 mm. long, villous, head of anthers globose, 2 mm. in diameter, little exserted, anther cells contorted: pistillate flowers in a 6–12-flowered head, peduncles 3–5 mm. long in flower, elongating to 1–2 cm. in fruit, flowering peduncles near the tip of the stem among very young leaves and tendrils; whole flower 4 mm. long, greenish: calyx-teeth wanting: corolla-tube articulated to ovary, funnelform, glabrous, limb 5-lobed: style glabrous; stigma capitate, rather large, slightly exserted, no staminodia: ovary ellipsoidal, sparingly ciliate: fruit slightly compressed, ovoid, 5 mm. long, entirely glabrous, the outer coat thin, the inner indurated, black, tuberculate-roughened.

Collected in the Organ Mountains south of San Augustine Ranch, September 1. Alt. 5000 feet, no. 606. First collected on the other side of the same mountain range September 17, 1893.

This plant belongs in the subgenus *Eusicyos* and, judging from the description, is most nearly related to *S. Galeottii* Cogn. Monog. Phan. **3**: 883.